Market Research

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The LNG Equipment and Services in Mexico

Summary

This sub-sector analysis report provides information regarding the market for equipment and services that are used in the Liquefied Natural Gas Industry (LNG). A partial list of Harmonized System codes included in this report appear on page 5 (table 3).

Contact Information

Contact:	**Francisco Ceron**
Address:	**U.S. Trade Center** **31 Liverpool, Col. Juarez** **06600 Mexico, D.F.**
Phone:	**(52-55) 5140 - 2600**
Fax:	**(52-55) 5546 - 0120**
Contact Email:	Franciso.Ceron@mail.doc.gov
Contact URL:	http://www.buyusa.gov/mexico

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Summary

This sub-sector analysis report provides information regarding the market for equipment and services that are used in the Liquefied Natural Gas Industry (LNG). A partial list of Harmonized System codes included in this report appear on page 5 (table 3).

The Secretary of Energy (Secretaria de Energia-SENER) is the federal entity that sets the priorities in regards to LNG and other priorities related to the energy sector in Mexico. Part of SENER is the Energy Regulatory Commission (Comision Reguladora de Energia –CRE) that grants the permits for the operation of LNG plants.

The total market in 2004 for the LNG industry equipment and services was USD 3.1 billion. It is expected that the total market will increase to USD 3.4 billion by the end of 2005. The total market is expected to reach an average annual growth of 10 percent from 2005 to 2006.

The market is becoming more competitive, especially due to efforts by companies from the Netherlands, Canada, France, Belgium, Spain and other countries

Market Overview

Mexico's increasing demand for natural gas to supply the needs of the industrial and residential sectors in the Northern States of Mexico has created a demand for liquefied natural gas processing plants and the possibility for private companies to participate in the exploration and production of natural gas.

The use of natural gas as an energy source has increased rapidly worldwide over the past two decades. This is a result of the increasing demand for efficient and clean fuels.

In this scenario, most countries including Mexico, have worked towards the deregulation of natural gas markets. In 1995, the Mexican Congress approved changes to Article 27 of the Mexican Constitution to deregulate the natural gas market, which was controlled by state-owned Pemex (national oil company), in an effort to expand the role of natural gas in the Mexican energy mix.

The modifications to the regulatory framework, in addition to the creation of the CRE, have allowed private sector firms to participate in the construction, operation and maintenance of LNG plants.

Market Trends

The LNG equipment and services market is expected to grow at an average of 10 percent during the next two years, due to the priorities set by SENER that supervise CRE, Pemex and the Federal Electricity Commission-Comision Federal de Electricidad- CFE (Mexico's Power Utility).

According to SENER, Mexico will have by the end of 2010 five LNG plants in operation. At present, two plants are under construction; one has received the permit; and two companies have applied for a permit from the CRE.

The CRE is the agency that reviews the applications submitted by private companies that want to build a LNG plant. Interested individuals must form a Mexican company and present a copy of the articles of incorporation in which they must mention an address that the firm has in the Mexican territory along with a complete application form. For more information on the permits, contact Francisco Ceron, author of this study.

Of the two plants that are under construction, as of June 2005, one is located in Altamira, State of Tamaulipas and the other in Ensenada, State of Baja California. The one that has received the permit would be located in the waters next to Colorado Island (Islas Colorado) in Baja California. The two applications that have been received are for the projects in Puerto Libertad, State of Sonora and Manzanillo, State of Colima.

Each of the LNG plants will be built by private sources. The total investment expected for the five projects is estimated at over USD 7 billion during 2005-2006 in contracts with manufacturers of iron and nonalloy steel pipes for gas, containers for liquefied natural gas of iron or steel, parts for boilers, water process gas generators, gas meters, gas valves, gas analyzers, and laboratory instruments.

Shell (Netherlands) is building a LNG plant in Altamira, State of Tamaulipas with a budget of USD 800 million to have the plant running by 2007 and supplying gas to CFE. Shell is reviewing the terms and conditions for an agreement to purchase the gas from Indonesia, Malaysia, Qatar, Oman or Australia.

Sempra (U.S.) that is building its LNG plant in Ensenada, State of Baja California, has a budget of USD 900 million and expects to have the plant running by the end of 2008. The company is reviewing the terms for a potential agreement to purchase the gas from Malaysia, Qatar, Oman or Australia.

Chevron that has received a permit for the Coronado Island project will invest over USD 500 million to 800 million from 2006 till 2008. This project has been experiencing some difficulties with environmental groups since the permit was issued.

The other two companies that have applied for permits are Tractebel (Belgium) and Iberdrola (Spain). The two companies have indicated to CRE officials that they have a combined budget of USD 3 billion to build LNG plants for Manzanillo and Puerto Libertad.

Import Market

The figures in the table 1 show that the total market size for the LNG equipment and services will increase from USD 3.1 billion in 2004 to USD 3.4 billion by the end of 2005. According to SENER, CRE, and CFE officials, 50 percent of the natural gas generated will be used by CFE, 40 percent by industries and 10 percent by the residential sector.

Total imports will grow at an average of 12 percent annually from 2005 to 2006. The growth is higher compared to the 2003 to 2004 period, which averaged 10 percent.

Statistical Data

Table 1

The LNG Industry Equipment and Services Market
(USD Millions)

	2003	2004	2005 Estimate *	2005-2006 Growth rate
Import Market	2,560.0	2,816.0	3153.9	12%
Local Production	625.0	656.3	689.1	5%
Exports	330.0	349.8	367.3	5%
Total Market	2,855.0	3,122.5	3,475.7	10%
Imports from U.S.	1,536.0	1,858.6	2,113.1	12%

* The 2005 estimate is a projection of data available to April 2005.
Exchange Rates: 1 USD = 10.50

Sources: Statistics from the Mexican Import and Export Bank (Bancomext); Secretariat of Economy (Secretaria de Economia); and interviews with private sector executives

Best Prospects

According to the companies that are participating in the Mexican LNG industry, below is a short list of the products and services that will be most in demand between 2005 to 2007.

PRODUCTS: high density polyethylene pipes, plastic fittings, pipe for gas of carbonsteel, boiler piping, welded pipe for gas of iron or nan-alloy stell, stainless steel pipe, containers for liquefied gas, water tube

boilers, vapor generating boilers, boilers for central heating, steam condensers, gas turbines, parts for turbines, turbo compressors, heat exchangers, security valves, security automatic valeves, industrial furnaces, industrial ovens, gas analyzers, calibration instruments for laboratories, and chromatographers.

SERVICES: engineering services for the design of LNG facilities, inspection and environmental engineering services, gas pipe installation services, physical (installations) security services.

Competition

The main third country competitors are the Netherlands, Canada, France, Belgium, Spain followed by others. The corresponding percentages are given in Table 4.

Table 2
Origin of Imports
Market Share (%)

Market share	2003	2004	2005 Estimate
US	60.0	66.0	68.0
Netherlands	12.0	13.0	12.0
Canada	10.0	8.0	6.0
France	5.0	6.0	4.0
Belgium	4.0	4.0	4.0
Spain	3.0	2.0	3.0
Others	6.0	1.0	3.0

Third-country competitors

Third country firms usually have a representative in Mexico to sell LNG equipment and services. They have actively promoted their interests during the four five years by participating in trade shows and technical seminars in Mexico's leading cities. When shows and seminars are held in their countries, they may invite government officials and potential representatives to participate with all expenses paid. These visits include tours of manufacturing plants and LNG plants already in operation.

End Users

Private Sector:

Major importers of LNG equipment and services are SEMPRA Energy, Shell, Chevron, Tractebel, and Iberdrola.

Public Sector:

Government-Owned Petroleum Company (Pemex) and the Federal Electricity Commission (CFE).

Market Access

There are no barriers for importing LNG equipment. However, the Mexican import law is very strict on the required documentation. While it is not required, it may be advantageous when selling equipment to use a reputable customs broker to properly prepare the paperwork needed. The basic documents required to import LNG equipment into Mexico include:

1)Import petition.
2)NAFTA Certificate of origin.
3)Commercial bill.
4)Insurance and freight bills.

The products qualifying as North American must use the NAFTA Certificate of Origin in order to receive preferential treatment. The exporter or broker may issue such a certificate. It does not have to be validated or formalized. Other entities that may issue a Certificate of Origin include government agencies, producers, exporters, industrial and commercial chambers of commerce, and associations that are legally authorized in the United States. Like the U.S., Mexico uses the Harmonized Tariff System (H.S.). However, Mexico uses only eight digits while the U.S. uses up to ten digits. The first six digits used under the HS system are identical for all countries, the rest may vary.

Table 3 shows the import duties assessed on some LNG industry equipment.

Table 3

Import Duties for selected LNG Industry Equipment

Harmonized System Number	Product	NAFTA Tariff Reduction Schedule	Current Import Duties N/O*
3917.2101	High-density polyethylene pipes	A	0/2
3917.4001	Plastic fittings for high density polyethylene pipes	A	0/15
7304.1099	Iron and non-alloy gas pipelines	C	0/10
7306.5099	Alloy steel pipes	C	0/15
7307.1199	Cast Iron pipe fittings	B	0/12

7311.0001	Steel Containers for liquefied natural gas of steel	B	0/12
8402.0901	Parts for boilers	A	0/15
8406.9099	Parts for Gas turbines	B	0/15
8419.5002	Heat exchangers	B	0/15
8481.1002	Gas valves	C	0/15
8414.8913	Compressors	B	0/15
8514.3003	Industrial Ovens	B	0/15
9026.1003	Flow meters	B	0/15
9026.2002	Electric pressure gauges	A	0/15
9027.00	Chromatographers	B	0/30

*In the 4th column it shows import duties for products from NAFTA (N) and non-NAFTA countries (O). Example 0/2, column shows import duties for products imported from NAFTA countries (0) and with which Mexico has no free trade agreement (2).

Category A: Duties on U.S. products were fully eliminated on January 1, 1994.

Category B: Duties on U.S. products were fully eliminated on January 1, 1998.

Category C: Duties on U.S. products were fully eliminated on January 1, 2003.

NOMS:

NOM CERTIFICATION: (Normas Oficiales Mexicanas - Mexican Official Standards). There are no NOMS applicable for LNG industry equipment. If companies want to build a LNG facility, they must follow SEMARNAT's (Secretaria del Medio Ambiente y Recursos Naturales) environmental impact authorization for the project and NOM-013-SECRE-2004 issued by CRE as "Safety Requirements for the design, construction, operation, and maintenance of terminals for liquefied natural gas storage which include systems, equipment and facilities for the reception, transportation, vaporizations and delivery of natural gas" .

The Commercial Service of the U.S. Embassy in Mexico City has an officer who follows developments in the standards area:

Louis Santamaria
U.S. Commercial Service - Mexico
Liverpool No. 31
Col. Juárez
06600 México, D.F.
Tel: (011-5255) 5140-2603
Fax: (011-5255) 5566-1115
E-mail: louis.santamaria@mail.doc.gov

For specific questions regarding standards for Energy equipment contact the author of this report.

SERVICES

It is a requirement to be registered as a Mexican firm by Mexico's Construction Chamber of Commerce-CMIC (Camara Mexicana de la Industria de la Construccion) to be authorized to provide construction and engineering services related to LNG plants.

To be authorized by the CMIC firms must present their articles of incorporation as a Mexican firm and engineers must show their Professional License (Cedula Profesional) issued by Mexico's Public Education Secretariat (Secretaria de Educacion Publica). For companies that do not want to open a Mexican firm, it is recommended to form an alliance with a Mexican construction and engineering firm with certified engineers.

IMPORT DUTIES AND TAXES

According to the 1998 modifications in the Mexican customs law, the participation of a customs broker is not obligatory for imports if all legal and technical requirements are met. In the same change, in order to import some goods, it is now required that the importer be registered as such with the Secretariat of Treasury and Public Credit (Secretaria de Hacienda y Credito Publico-SHCP). The participation of a customs broker is suggested when the exporter is not familiar with the Mexican standards and customs processing procedures.

Almost all LNG industry equipment from NAFTA countries are exempt from any import duties. Duty for non-NAFTA countries range from 3 to 15 percent for the same products. For specific tariff information on non-NAFTA rates for the LNG industry contact the Commercial Service's Francisco Ceron in Mexico City His contact information is listed in the end of this report.

A 15 percent Value Added Tax (IVA) is assessed on the cumulative value, consisting of the U.S. plant value (invoice) of the product, plus the inland U.S. freight charges, any other costs listed separately on the invoice such as export packing plus the duty. The importer will pay other IVA fees for such services as the inland Mexico freight and warehousing. The IVA tax is only 10 percent for border area destinations. The IVA is recovered at the point of sale.

The following example shows the difference in import costs for a NAFTA firm versus a non-NAFTA firm. The example also shows the effect of the 15 percent VAT on the final import price versus a non-NAFTA manufacturer's price.

Direct Import Cost Template

	US Firm	Non-NAFTA Firm
Base Price	$100.00	$100.00
Freight (estimated 8.0%)	8.00	8.00
Insurance (1.5% of C&F)	1.62	1.62
Dutiable base =CIF	109.62	109.62
Ad Valorem Duty (3.0%)	0	3.29
Value Added Tax (15.0%)	16.44	16.94
Total	$126.06	$129.85
Port Costs (Unloading, storage, Est 6.0% CIF)	7.56	7.79
Freight forwarder fee (Est. 1.5% CIF)	1.64	1.64
Bank charges (2.0% of FOB price)	2.00	2.00
GRAND TOTAL	$137.26	$141.28

Note:
As of July 1, 1999 NAFTA originating goods are no longer subject to the 0.8% customs processing fee. A NAFTA certificate of origin is needed to take advantage of this exemption.

CERTIFICATE OF ORIGIN: A certificate of origin is required from all foreign suppliers or exporters. If the product qualifies as North American in content, the exporter must use the NAFTA Certificate of Origin in order to benefit from preferential treatment under NAFTA. This is the responsibility of the exporter and the forms are available from the U.S. Customs Service, freight forwarders, or local U.S. Chambers of Commerce. The certificate should contain at least the following:

- Name of Exporter
- Name of Producer
- Tariff Classification of Product
- Description of Goods (similar to invoice)
- Number of the Official Invoice

FREE SALE CERTIFICATE: This certificate is required for all products entering Mexico. This certificate proves that the imported goods are also sold in the country of origin. A letter from the local Chamber of Commerce is sufficient proof and the importer would present it at the time of importation.

LABELING REQUIREMENTS: According to Mexico's Federal Law on Metrology and Standardization, LNG equipment sold in Mexico are exempted from having a label in Spanish affixed to each. Listing the required information in Spanish on the shipping container will satisfy the labeling requirement. The Spanish information on the box must contain, at a minimum, the following information:

- Name and address of the importer
- Importer's Ministry of Finance Taxation Number (RFC number and/or their Industry Association registration number)
- Exporter's name and address

- Trademark or commercial brand name of the product
- Product description whenever the product is packed in such a form that it is not visible
- Use, handling, and care instructions for the product, as required
- Country of origin
- Warnings or precautions on hazardous products
- Size, if applicable, Mexico's Federal Law on Metrology and Standardization stipulates that all weights and measures must be in the metric system.

Market Entry

Oftentimes, the decision to select a LNG equipment and services provider depends on the demonstrated commitment to service after the sale has been made. This has been the most effective tool that third country manufacturers have used to penetrate the market. They offer to have their maintenance personnel at the clients' facilities in no more than 48 hours after a service call is made. The availability of required spares is the natural complement to the presence of their technicians.

Customers in the LNG industry equipment and services are demanding uniform quality control compliance wit international standards, productivity, lower production costs, just-in-time deliveries and above all, reliable local servic and maintenance programs. This last factor has become, in many instances, even more important than pricing c financing in the LNG equipment purchasing decision.

Opportunities for Profile Building

U.S. firms wishing to promote their products and/or services to Mexican representatives and/or buyers can do so by participating in the trade exhibitions program of Commercial Service Mexico, held annually in Mexico through privately held exhibitions and/or seminars.

Advertisements in specialized magazines are very effective, especially in publications distributed to members of associations or distributed to large potential end-users, equipment distributors, contractors, and government officials. Important magazines are:

ENERGIA HOY
Circulation: 15,000
Periodicity: Monthly
Website: www.energiahoy.com

EL MUNDO DEL PETROLEO
Circulation: 10,000
Periodicity: Bimonthly
Website: www.elmundodelpetroleo.com

Upcoming Trade Shows

Pemex and its four divisions (Exploration and Production, Refining, Gas and Basic Petrochemicals, and Secondary Petrochemicals) are organizing the Seventh International Conference and Exhibition on the oil and gas industry that will take place in Merida, State of Yucatan.

Included in the event will be a series of conferences/seminars presented by Pemex and CFE officials and executives from important companies in gas and oil industry. The presenters will speak about the current conditions of the international LNG industry and the strategies that international companies are using to be successful in LNG market.

There will also be an exhibition that will highlight the latest technologies and services for the installation of pipelines and distribution of natural gas, petroleum, and environmental protection.

Name of Event: 7th International Oil and Gas Conference and Exhibition
Date of Event: November 9-11, 2005
Location: Merida, Yucatan
Venue: Convention Center of Merida, Yucatan
Frequency of Event: Biannual

KEY CONTACT: For further information, please contact.

Francisco Ceron
U.S. Commercial Service Mexico City
Phone 011(52-55) 5140-2640
Fax 011 (52-55) 5566-1111
e-mail: francisco.ceron@mail.doc.gov

USEFUL websites on the industry:

Secretariat of Energy: http://www.sener.gob.mx

Energy Regulatory Commission: http://www.cre.gob.mx

PEMEX: http://www.pemex.gob.mx

CFE: http://www.cfe.gob.mx

Secretariat for the Environment and Natural Resources: http://www.semarnat.gob.mx